

Report IR 1240 (1996) "Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers (supersedes IR 1121)" by a person certified in accordance with § 70.203 (Certified person; maintenance and calibration).

(b) Approved sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health and Human Services for the particular device, before they are put into service and at intervals not to exceed 200 hours of operating time thereafter.

(c) A calibration mark shall be placed on the flowmeter of each approved sampling device to indicate the proper position of the float when the sampler is operating at a flowrate of 2.0 liters of air per minute or other flowrate prescribed by the Secretary and the Secretary of Health and Human Services for the particular device. The standard to denote proper flow is when the lowest part of the float is tangent to the top of the calibration mark.

(d) Approved sampling devices shall be tested and examined immediately before each sampling shift and necessary external maintenance shall be performed to assure that the sampling devices are clean and in proper working condition by a person certified in accordance with § 70.202 (Certified person; sampling) or § 70.203 (Certified person; maintenance and calibration). This testing and examination shall include the following:

(1) Testing the voltage of each battery while under actual load to assure the battery is fully charged. The voltage for nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by 1.25. The voltage for other than nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by the manufacturer's nominal voltage per cell value;

(2) Examination of all components of the cyclone to assure that they are clean and free of dust and dirt;

(3) Examination of the inner surface of the cyclone on the approved sampling device to assure that it is free of scoring;

(4) Examination of the external tubing on the approved sampling device to assure that it is clean and free of leaks, and;

(5) Examination of the clamping and positioning of the cyclone body, vortex finder and cassette to assure that they are rigid, in alignment, and firmly in contact.

(e) MSHA Informational Report IR 1240 (1996) referenced in paragraph (a) of this section is incorporated-by-reference. This incorporation-by-reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected or obtained at MSHA, Coal Mine Safety and Health, 4015 Wilson Boulevard, Room 816, Arlington, VA 22203 and at each MSHA Coal Mine Safety and Health district and subdistrict office. Copies may be inspected at the Office of the Federal Register, 800 North Capitol Street NW., Suite 700, Washington, DC.

[45 FR 24000, Apr. 8, 1980, as amended at 47 FR 28095, June 29, 1982; 64 FR 43285, Aug. 10, 1999]

§ 70.205 Approved sampling devices; operation; air flowrate.

(a) Sampling devices approved in accordance with part 74 (Coal Mine Dust Personal Sampler Units) of this title shall be operated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health and Human Services for the particular device.

(b) Except as provided in paragraph (d) of this section, each approved sampling device shall be examined each shift by a person certified in accordance with § 70.202 (Certified person; sampling) during the second hour after being put into operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper flowrate is not maintained, necessary adjustments shall be made by the certified person.

(c) Each sampling device shall be examined each shift by a person certified in accordance with § 70.202 (Certified person; sampling) during the last hour of operation to assure that the sampling device is operating properly and at the proper flowrate. If the proper

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flowrate is not maintained, the respirable dust sample shall be transmitted to MSHA with a notation by the certified person on the dust data card stating that the proper flowrate was not maintained.

(d) Paragraph (b) of this section shall not apply if the approved sampling device is being operated in a breast or chamber of an anthracite coal mine where the full box mining method is used.

[45 FR 24000, Apr. 8, 1980, as amended at 47 FR 28095, June 29, 1982]

§ 70.206 Approved sampling devices; equivalent concentrations.

The concentration of respirable dust shall be determined by dividing the weight of dust in milligrams collected on the filter of an approved sampling device by the volume of air in cubic meters passing through the filter and then converting that concentration to an equivalent concentration as measured with an MRE instrument. To convert a concentration of respirable dust as measured with an approved sampling device to an equivalent concentration of respirable dust as measured with an MRE instrument, the concentration of respirable dust measured with the approved sampling device shall be multiplied by the constant factor prescribed by the Secretary for the approved sampling device used, and the product shall be the equivalent concentration as measured with an MRE instrument.

§ 70.207 Bimonthly sampling; mechanized mining units.

(a) Each operator shall take five valid respirable dust samples from the designated occupation in each mechanized mining unit during each bimonthly period beginning with the bimonthly period of November 1, 1980. Designated occupation samples shall be collected on consecutive normal production shifts or normal production shifts each of which is worked on consecutive days. The bimonthly periods are:

January 1–February 28 (29)
March 1–April 30
May 1–June 30
July 1–August 31
September 1–October 31

November 1–December 31.

(b) When the respirable dust standard is changed in accordance with § 70.101 (Respirable dust standard when quartz is present), respirable dust sampling of mechanized mining units shall begin on the first production shift during the next bimonthly period following notification of such change from MSHA.

(c) Upon issuance of a citation for a violation of § 70.100(a) (Respirable dust standards) or § 70.101 (Respirable dust standard when quartz is present) involving a designated occupation in a mechanized mining unit, paragraphs (a) and (b) of this section shall not apply to that unit until the violation is abated in accordance with § 70.201(d) (Sampling; general requirements).

(d) Each designated occupation sample shall be taken on a normal production shift. If a normal production shift is not achieved, the sample for that shift may be voided by MSHA. However, any sample, regardless of production, with a respirable dust concentration greater than 2.5 milligrams per cubic meter of air will be used to determine the average concentration for that mechanized mining unit.

(e) Unless otherwise directed by the District Manager, the designated occupation samples shall be taken by placing the sampling device as follows:

(1) *Conventional section using cutting machine.* On the cutting machine operator or on the cutting machine within 36 inches inby the normal working position;

(2) *Conventional section shooting off the solid.* On the loading machine operator or on the loading machine within 36 inches inby the normal working position;

(3) *Continuous mining section other than auger-type.* On the continuous mining machine operator or on the continuous mining machine within 36 inches inby the normal working position;

(4) *Continuous mining machine; auger-type.* On the jacksetter who works nearest the working face on the return air side of the continuous mining machine or at a location that represents the maximum concentration of dust to which the miner is exposed;

(5) *Scoop section using cutting machine.* On the cutting machine operator or on